

REMARKS

Applicant respectfully requests reconsideration. Claims 1-10 were previously pending in this application. By this amendment, claims 1 and 6 have been amended. New claims 11-17 have been added. As a result, claims 1-17 are pending for examination with claims 1, 6 and 13 being independent claims. No new matter has been added.

Objections to the Specification

The Examiner objected to page 11, line 31. The objection was based on a typographical error causing an incorrect reference number to appear. The proposed change corrects the typographical error.

Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. §112

The Examiner has rejected claim(s) 1, 5, 6 and 10 under 35 U.S.C. §112. The Examiner states that all described embodiments in the specification detect explosives using x-rays, but the claims are not limited to detection using x-rays. Applicant's contend that limiting the claims to detection systems that employ x-rays goes further than is necessary.

Some use the term x-ray to refer generally to radiation that may be used to image the interior portions of objects. But others might interpret "x-ray" to refer to radiation in a specific range of the radiation spectrum. Such a limiting definition is not intended here. Radiation in other portions of the frequency spectrum would perform similarly and one of skill in the art would understand how to construct a system using other forms of radiation. For example, the term "gamma rays" is sometimes used to refer to radiation used for imaging and, depending on the meaning attached to "x-rays" might be excluded by adopting the Examiner's suggested changes.

There is no requirement that the claims be limited only to the described embodiments. Therefore, they are amended to refer to scanning using radiation, which should address any concern the Examiner might have with unduly limiting the claims.

Accordingly, withdrawal of the rejection of claim(s) 1, 5, 6 and 10 under 35 U.S.C. §112 is respectfully requested.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 1-10 under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,367,552 to Peshman. Applicants respectfully disagree that Peshman teaches all of the limitations of the claims. This cited passage in column 10 is understood to refer to examining a slice or a few slices of an object under inspection using dual energy CT analysis. In the context of the overall reference, these slices are selected as the result of a prescanning step. Accordingly, the reference does not teach the claim element requiring that the information obtained through the scan provide “an indication of effective atomic number over substantially all of the object.”

Applicants also contend that the reference fails to teach the claim limitations requiring “an external computer, located remotely from the device.” Applicants contend that one of skill in the art would not interpret Peshman as showing this claimed feature. Computer 26, referred to by the Examiner, is connected to the inspection system through an SBUS. A separate connection is also made to a sensor in the device. In contrast, computer 26 is shown to be connected to remote devices over a network. One of skill in the art would not read the reference to the scanning device is not connected to computer 26 over that network. Accordingly, computer 26 can not be said to be external to and located remotely from the scanner.

Applicants contend these differences are not obvious. In the field of explosive detection, it is important to provide both thorough detection and rapid operation. However, these requirements are often in conflict. Any system architecture that can improve thoroughness of inspection and speed of operation is significant. Applicants contend that the design strikes a desirable balance between thoroughness of inspection and speed of operation and is therefore significant. Because their design is not taught or shown in the references, the claims cannot be said to be obvious.

The dependent claims provide further distinguishing features. For example, claim 11 recites indicating regions of the object based on effective atomic number. Claim 12 recites further steps by which potential target objects are classified.

Newly added claim 13 distinguishes over the reference for the reasons given above. It also expressly states that the computer must be connected to the scanner over a network, which is not shown by Peshman. Claims 14-16 recite additional details of the detection algorithm. For example, these claims recite combining information on effective atomic number and density with confidence levels; a region growing algorithm; and using information on proximity of a region to metal.

Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the undersigned at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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